

REMARKS

The following remarks are responsive to the Office Action mailed January 15, 2004.

Claims 1-25 are currently pending.

Claims 17-25 have been added as new claims to more fully claim the subject matter of the present application. No new matter has been introduced by the amendments made herein.

Claim Rejection under 35 USC § 103:

Claims 1-16 stand under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent 6,144,352 to Matsuda et al. ("Matsuda") in view of DE 199, 23, 527 A1 to Bohlendorf ("Bohlendorf") and U.S. Patent 5,184,114 to Brown ("Brown").

Specifically, the Examiner posits that – as to Claims 1-16 – Matsuda teaches an LED display array comprising a blue emitter in a center of a pixel; a pair of red emitters spaced apart from the blue emitter and symmetrically disposed about the emitter in second and fourth quadrants; a pair of green emitters spaced apart from the blue emitter and symmetrically disposed about the emitter in first and third quadrants (see Figures 1, 2A; column 4, lines 50-57; column 5, lines 64-68 and column 6, lines 1-3). Matsuda teaches the blue emitters are half resolution of red and green emitters (B:R:G = 1:2:2) (see Figure 2A).

The Examiner additionally notes that Matsuda teaches a circle pixel (see Figures 1 and 2A); however, the Examiner concludes that Matsuda fails to disclose a square pixel and a transistor and a capacitor coupled to an emitter.

The Examiner further posits that Bohlendorf teaches a square pixel having a blue emitter, a pair of green emitters, a pair of red emitters (see Figure 2). Thus, the Examiner concludes, it would have been obvious to have modified Matsuda with the teaching of Bohlendorf, since a change in shape of a pixel is generally recognized as being within the level of ordinary skill in the art.

The Examiner further posits that Brown teaches an LED display having a transistor (Q) and capacitor (C) coupled to an emitter (25R, or 25G, or 25B) (see Figures 5, 13-14; column 5, lines 23-35 and column 10, lines 4-27). Thus, the Examiner concludes, it would have been obvious to have modified Matsuda with the teaching of Brown, so each of the emitters could be individually controlled by a transistor and provide a high quality of a display to a user.

Lastly, the Examiner notes – with regards to Claims 15-16 – Matsuda teaches a radiance value of red emitters and green emitters is equal (the ratio of color can be changed) (see Figures 1, 2A, 3 and column 6, lines 4-27).

Applicant submits that Claims 1-25 are patentable over Matsuda in view of Bohlendorf and Brown under 35 U.S.C. § 103(a). None of Matsuda, Bohlendorf or Brown, individually or in combination, teaches or suggests each and every limitation of Claims 1-25.

As for merely one example weighing in favor of patentability, Independent Claim 1 recites “wherein said second and third transistors are grouped together at interstitial corners between said three-color pixel elements” -- where the second transistors and third transistors are coupled to the red and green emitters. As noted in the

specification, this advantageous placement of transistors or associated structures addresses the issue of decreasing the visible pattern of dark (e.g. blue) subpixels situated upon a panel.

Similarly, Independent Claim 4 recites: "wherein said transistors for said red emitters and said green emitters are grouped together at interstitial corners between said three-color pixel elements". Additionally, Independent Claim 4 recites: "wherein said transistors for said red emitters and said green emitters are disposed at locations in said array such that said transistors for said red emitters and said green emitters are disposed at said spatial frequency said blue emitters and are 180 degrees out of phase with said blue emitters".

Independent Claim 9 recites: "a second transistor for said red emitter, and a third transistor for said green emitter, wherein said second and third transistors are grouped together at interstitial corners between said three-color pixel elements".

Independent Claim 12 recites: "wherein said transistors for said red emitters and said green emitters are grouped together at interstitial corners between said three-color pixel elements". Additionally, Claim 12 recites: "wherein said transistors for said red emitters and said green emitters are disposed at locations in said array such that said transistors for said red emitters and said green emitters are disposed at said spatial frequency of said blue emitters and are 180 degrees out of phase with said blue emitters".

New Independent Claim 17 recites: "wherein each said red emitter and said green emitter is coupled to a transistor and such that each such transistor for said red

and green emitter is substantially located in a interstitial corner of said substantially rectangular coordinate system”.

New Independent Claim 18 recites: “wherein each said red emitter and green emitter is connected to a transistor such that said transistors for said red and green emitters substantially form a dark spot in the interstitial corners between said pixel elements”.

New Independent Claim 22 recites: “wherein said associated structures are grouped together upon said display such that said associated structures form dark spot regions such that the visibility of the pattern of said blue subpixels upon said display is decreased to the human viewer”.

As the references cited by the Examiner – either individually or in combination – do not teach or suggest the limitations of the pending independent Claims, Applicant respectfully submits that pending Claims 1-25 are now in condition for allowance and the same is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claims 1-25 are patentable over the cited art of record and are in condition for allowance. Therefore, Applicant requests the Examiner to reconsider and withdraw his rejections to all pending claims and pass this application to issue.

If the Examiner believes a telephone conference would expedite the allowance of the claims, the Examiner is invited to contact Stuart P. Kaler at (707) 824-2487.

Respectfully submitted,

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